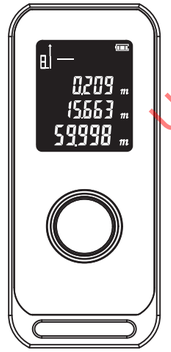
UNI-T

Mini Laser Distance Meter

User Manual



LM40Mi LM50Mi LM60Mi

Safety Regulations

Please read the safety regulations and operation guide carefully before operating.

⚠ Please read all of the operational guide and safety regulations in this manual before operation . Improper operations without complying with this manual may cause damage to the device, influence on measurement result or cause personal injury to the user or a third party.

⚠ The instrument is not allowed to disassemble or repair in any ways. It is forbidden to do any illegal modification or performance change for laser emitter. Please keep it out of reach of children and avoid being used by any irrelevant person.

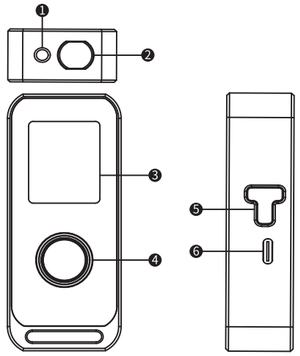
⚠ It is strictly prohibited to shoot eyes or other parts of body with the laser. It is not allowed to take the laser to shoot the surface of any highly reflective objects.

⚠ Due to electromagnetic radiation interference to other equipment and devices, please don't use the meter in the plane or around medical equipment, don't use it in inflammable, explosive environment.

⚠ Discarded meter device should not be processed just like household garbage, please handle it in line with related law and regulations.

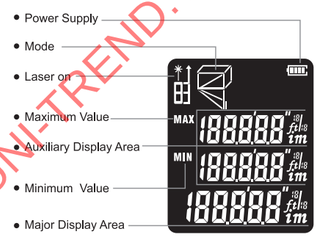
⚠ Any quality issues or any questions on the meter, please contact local distributors or manufacturer in time, we are ready to offer solutions for you.

Product Overview



1. Laser Emitting Lens
2. Laser Receiving Lens
3. LCD
4. Power/Measure Button
5. Mode Switch
6. Type-C Charging Port

Display



Start the Instrument / Menu Setting

- **Turn on/off the Instrument**

Under off state, press ○ , device and laser get started simultaneously and the device enters the measurement mode.

Under on state, long press ○ for 3s to turn off the device, or it will automatically shut off without any operation within 150 seconds.

- **Unit Setting**

When the laser is turned off, long press ▽ to switch the measurement unit. The default unit is: 0.000m. There are 3 units for selection.

Measurement units:

	Length	Area	Volume
1	0.000m	0.000 m^2	0.000 m^3
2	0.0 in	0.00 ft^2	0.00 ft^3
3	0.00 ft	0.00 ft^2	0.00 ft^3

- **Changing Reference Point**

When the laser is turned on, long pres ▽ to change the reference point. The default reference point is the terminal baseline.

- **Battery**

Built-in 3.7V 370mAh lithium battery, the battery icon will flash when the battery is low.

Self-calibration &Sound on/off

- **Self-calibration Function**

The self-calibration function is mainly used to correct data. If the deviation occurs when the user measures the distance, this function can be used for distance correction.

The correction range is -0.009~0.009m. For example, if the data is 2mm too large, reduce the value by 0.002m; If the data is 2mm smaller, increase the value by 0.002m.Operation：

1. Enter self-calibration: In the shutdown state, press and hold the ▽ key, and at the same time quickly press the ○ key to start the instrument up, and the screen displays "CAL";
2. Modify calibration value: Press ▽ key to increase the calibration value by 1. When the calibration value is equal to 0.009m, increase the calibration value by 1 again and jump to -0.009m.
3. Save calibration value: Press ○ to save the current calibration value and enter the sound setting.

- **Sound on/off**

The instrument is equipped with sound prompt f unction by default. Users can turn on/ off the sound prompt according to their needs.

1. Enter sound setting: Refer to "Self-calibration" to enter the self-calibration. Skip the step of modifying the calibration value, save the calibration value directly to enter the sound setting, and the screen displays "sound";
2. Turn on/off sound: Press ▽ to turn the sound on or off. "on" means to turn on the sound, off means to turn off the sound;
3. Save settings: Press ○ to save settings and return to the state to be measured.

Single Measurement

Under the test mode, press ○ , and the instrument emits laser to lock the measuring point. Press ○ again for single distance measurement, and the measurement result will be displayed in the major display area.

Continuous Measurement

Under the test mode, long press ○ and max/min will flash on the screen, then release the key to enter the continuous measurement mode, power off in 3 minutes without releasing the button and the maximum and minimum measured values measured in the continuous measurement process will display in the auxiliary display area.

The current measurement value will display in the main display area. Short press ○ or ▽ to exit the continuous measurement mode.

Area Measurement

Press ▽ , ▭ shows at the screen. One of the side of rectangle blinks at the display, please follow the below instructions for area measurement:

Press ○ once for length
Press ○ again for width

The device automatically calculates the area and shows the result in the major display area. The measuring results of the length and width of the rectangle will beshowed in the auxiliary display area.

Perimeter Measurement

Press ▽ twice, ▱ shows at the screen. One of the side of the parallelogram blinks at the display, please follow the below instructions for perimeter measurement:

Press ○ once for length
Press ○ again for width

The device automatically calculates the perimeter and shows the result in the major display area. The measuring results of the length and width of the parallelogram will be showed in the auxiliary display area.

Volume Measurement

Press ▽ three times to enter volume measurement mode. A ⬚ will show at the top of the screen, and its longsides will blink. Please follow the below instructions for volume measurement:

Press ○ once for length
Press ○ again for height
Press ○ finally for width

The device automatically calculates the volume and shows the result in the major display area. The measuringresults of the height and width of the cube will beshowed in the auxiliary display area.

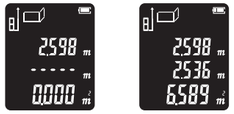
Metope Area Measurement

Press ▽ four times till ⬚ shows at the display. Please follow the below instructions for metope area measurement:

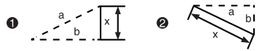
Press ○ once for the height of the wall;
Press ○ again for the width 1 of wall 1;
The instrument will automatically calculate the area of the wall: Area=Height × Width 1

Press ○ to start the measurement;
Press ○ again for the width2 of wall 2;
The instrument will automatically calculate the total area of the wall:
Total area = Height x (Width 1+ Width 2)

By analogy, press ○ to measure the width(n) of the wall (n);
Total area = Height x(Width 1+ Width 2+...+ Width n)



Pythagoras



There are two Pythagoras modes which is convenient for indirect measurement in a specific complex environment.

❶ Calculate the second leg by measuring the hypotenuse and another leg. ◿
Short press ▽ five times to enter Pythagoras mode:
Press ○ , measure the length of hypotenuse (a)
Press ○ , measure the length of one leg (b)
Device automatically calculates the length of another leg (x)

❷ Calculate the hypotenuse by measuring the length of two legs.
Short press ▽ six times, one leg of ◺ is blinking.
Press ○ , measure the length of one leg (a)
Press ○ , measure the length of another leg (b).
Device automatically calculates the length of hypotenuse (x)

Legs must be shorter than hypotenuse, or there will be "err" showed at screen. In order to guarantee the accuracy, please make sure all measurements are started from the same point and in the order of hypotenuse and legs.

Tips

During use, the following prompts may be displayed in the major display area:

Prompt	Cause	Solution
Err	Out of the measurement range	Use the device within the measurement range
Err1	Signal is too weak	Choose the surface with stronger reflection, Use the reflecting plate.
Err2	Signal is too strong	Choose the surface with weaker reflection.
Err3	Low battery voltage	Charge the battery
Err4	Beyond working temperature	Use the device in the specified temperature.
Err5	Pythagoras measuring breaks the rules	Re-measure and ensure that hypotenuse is longer than legs.

Technology Specifications

ITEM	LM40Mi	LM50Mi	LM60Mi
Measurement Range	0.05-40m	0.05-50m	0.05-60m
Precision	±(2.0mm+5×10^{-5}D)*		
Continuous Measurement	√		
Metope Area Measurement	√		
Area/Volume Measurement	√		
Perimeter Measurement	√		
Pythagorean Measurement	√		
Min/Max Value	√		
Laser Level	CLASS II		
Laser Type	630-670nm,<1mW		
Automatically Cut off Laser	20s (single measurement)		
Auto Power-off	150s		
Battery	3.7V 370mAh lithium battery		
Full charge measurement times	8000 times for single measurement		
Storage Temperature	-20℃~60℃		
Working Temperature	0℃~40℃		
Storage Humidity	20%~80%RH		
Weight	75g		
Dimension	86.5×36.5×19.5mm		

* "d" indicates the actual distance,
** In harsh environment, such as: sunlight is too strong, the ambient temperature fluctuates excessively, the reflection effect of the object's surface is weak, the battery is low, the measurement results will have a large error, so a reflecting plate is needed.

Instrument Maintenance

- The meter should not be stored in high temperature and humid environment for a long time. If it is not used very often, please place the meter in the box and store it in cool and dry place.
- Please keep the device surface clean. Use a soft wet cloth to wipe the dust on the surface. Do not use corrosive liquid to clean the device. Use the same method as wiping optical devices to wipe the meter and focusing mirror.

Packing List

Please check if all accessories are complete a ccording to the following list.

No.	Item	Unit	QTY	Note
1	Meter	pc	1	
2	User Manual	pc	1	
3	Gift Box	pc	1	
4	Charging Cable	pc	1	
5	Hand rope	pc	1	

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